AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the federal Clean Water Act, as amended, 33 U.S.C. §§1251 et seq., and the Massachusetts Clean Waters Act, as amended, Mass. Gen. Laws. ch. 21, §§26-53, the

Massachusetts Water Resources Authority ("MWRA")

is authorized to discharge from:

MWRA Publicly Owned Treatment Works ("POTW")
Deer Island Treatment Plant
Deer Island
Boston, MA 02152
(Discharge serial number TO1 (see Attachment A)),

which discharges to receiving waters located in Massachusetts Bay, which is adjacent to Cape Cod Bay, and a part of the Gulf of Maine;

and from Combined Sewer Overflow Outfalls (see Attachment B), which discharge to the Charles River, Inner Harbor, Mystic River, Boston Harbor, Dorchester Bay, Alewife Brook (CSOs);

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective thirty (30) days from the date of issuance.

This permit and the authorization to discharge expire at midnight, five years from the effective date.

This permit consists of 32 pages and Attachments A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U and V in Part I including effluent limitations and monitoring requirements and 35 pages in Part II including General Conditions and Definitions.

Signed this day of

_____	_____
Director Office of Ecosystem Protection Environmental Protection Agency Boston, MA	Assistant Commissioner Bureau of Resource Protection Department of Environmental Protection Commonwealth of Massachusetts Boston, MA

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PART I

1. TO1 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number TO1 from the communities listed in Attachment D:

a. Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to the entrance of the outfall tunnel. (Background information on permit limits can be found at: (1) Fact Sheet, Section VI.A.5, MWRA's Initial Dilution: Outfall TO1, and (2) Permit Attachment S, Sample Calculation.)

Effluent Characteristic	Discharge Limitation			Monitoring Requirement	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency[18]	Sample Type
Flow, million gallons/day (MGD)	Report	---	Report	Continuous	See Footnote[*11]
Flow, Dry Day, MGD	436[*3]	---	Report	Continuous	See Footnote[*3]
$CBOD_5$, mg/l[*2]	25	40	Report	1/Day	24-hr Composite
TSS, mg/l[*2]	30	45	Report	1/Day	24-hr Composite
pH	(See Condition I.1.c. on Page 7)			1/Day	Grab
Fecal Coliform Bacteria[*15,*16,*17]	---	14000/100ml[*13]	14000/100ml[*14]	3/Day	Grab
Chlorine, Total Residual, ug/l[*4]	456	---	631	3/Day	Grab
PCB, Aroclors: 1016,1221,1232, 1242,1248,1254,1260, ug/l	0.000045	---	Report	1/Month	24-hr Composite
LC_{50} [*5]	---	---	50% or greater[*6]	Footnote[*10]	24-hr Composite[*9]
C-NOEC[*7]	---	---	1.5% or greater[*8]	Footnote[*10]	24-hr Composite[*9]

Note: Footnotes begin on page 4 of this permit.

PART I

Part I.1.a., continued:

Effluent Characteristic	Discharge Limitation			Monitoring Requirement	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency[18]	Sample Type
Settleable Solids,ml/l	---	Report	Report	1/Day	Grab
Chlorides (Influent only), ug/l	---	---	Report	1/Day	Grab
Mercury, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Chlordane, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
4,4 - DDT, ug/L[*1]	Report	---	Report	1/Month	24-hr Composite
Dieldrin, ug/L[*1]	Report	---	Report	1/Month	24-hr Composite
Heptachlor, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Ammonia-Nitrogen, mg/l	Report	---	---	1/Month	24-hr Composite
Total Kjeldahl Nitrogen, mg/l	Report	---	---	1/Month	24-hr Composite
Total Nitrate, mg/l	Report	---	---	1/Month	24-hr Composite
Total Nitrite, mg/l	Report	---	---	1/Month	24-hr Composite
Cyanide, Total Recoverable, ug/l[*1]	Report	---	Report	1/Month	Grab
Copper, Total Recoverable, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Arsenic (Total), ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Hexachlorobenzene, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Aldrin, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
Heptachlor Epoxide, ug/l[*1]	Report	---	Report	1/Month	24-hr Composite
PCBs, Total, ug/l[*12]	Report	---	Report	1/Month	24-hr Composite
Volatile Organic Compounds, ug/l[*1]	Report	---	Report	1/Month	Grab

Part I.1.a., Footnotes:

*1. The permittee shall use an EPA approved method with the lowest minimum detection level possible (i.e., if feasible with a minimum detection level of 0.01 ug/l or lower).

*2. Report both influent and effluent results for this parameter. $CBOD_5$ shall be tested using the following test method: 5-Day BOD Test (Dissolved Oxygen Depletion with Nitrification Inhibitor) EPA Standard Methods for the Examination of Water and Wastewater (18th edition), no. 5210 B.

*3. The maximum number of communities allowed to discharge wastewater into the MWRA treatment facility shall be the 43 communities listed in Attachment D of this permit, except for sources that are already connected to the MWRA system from other municipalities when this permit becomes effective, or as specified below.

Note: Footnotes are continued on Page 5 of this permit.

Part I.1.a., Footnotes, Continued:

The 365 calendar day running average dry day flow shall not exceed 436 MGD. For this purpose, a dry day is defined as a day with 0.09 inches of precipitation or less and no snow melt, provided that the precipitation on the previous day is less than 0.3 inch, and the precipitation on the day two days prior to the day in question is less than 1.0 inch, and the precipitation on the day three days prior to the day in question is less than 2.0 inches. A day with snow melt is defined as a day when there is snow on the ground and the air temperature rises above 32 fahrenheit degrees. Flow from CSO storage facilities will not be included in the dry day calculation. Compliance with this flow limit will be determined each month by calculating the average dry day flow over the previous 365 calendar days. The once a month calculation shall include all dry day flow that occurred during the reporting month. MWRA may not accept wastewater or septage, from new sources outside of the MWRA sewer service area except for a limited number of wastewater connections totaling no more than 1.4 MGD.

*4. Total Residual Chlorine shall be tested using any of the following three methods:

(1) DPD spectrophometric (colorimetric) - EPA no. 330.5 or Standard Methods (18th edition), no. 4500-Cl G.

(2) DPD titrimetric (ferrous titrimetric). EPA no. 330.4 or Standard Methods (18th edition), no. 4500-Cl F.

(3) Amperometric titration. EPA no. 330.1 or Standard Methods (18th edition), no. 4500-Cl D, or ASTM no. D1253-86(92).

*5. LC50 is the concentration of effluent in a sample that causes mortality to 50% of the test population at a specific time of observation.

*6. "50% or greater" is defined as a sample of half effluent and half receiving water. This limit is considered to be a maximum day limit.

*7. C-NOEC is the highest effluent concentration at which No Observed Chronic Effects (e.g. growth, reproduction, mortality) will occur at continuous exposure to test organisms (in a life-cycle or partial life-cycle test.)

*8. The "1.5% or greater" limit is defined as a sample which is composed of 1.5% (or greater) effluent, the remainder being dilution water. The limit is considered to be a maximum day limit.

*9. Perform a 7-day Chronic and Modified Acute toxicity test using the Inland Silverside (Menidia beryllina), perform a fertilization test using the Sea Urchin (Arbacia punctulata), and an Acute toxicity test using the Mysid Shrimp (Mysidopsis bahia). The tests must be performed in accordance with test procedures and protocols specified in Attachments E and F of this permit. (Note: These EPA-approved protocols may be superseded by EPA-approved protocol updates.)

*10. Toxicity Measurement Frequency

(a) The toxicity tests shall be performed each month. Toxicity test reports shall be submitted one month following the test procedure, and by the last day of the month. As an example, the March toxicity test shall be submitted by April 30th.

(b) The permittee shall minimize the use of polymers, which may be used during the secondary treatment process during high flow conditions. Each new polymer shall be tested by either the permittee or the manufacturer using standard EPA toxicity test protocol and the three test species listed under Part I.1.a.9. of this permit, to determine the concentrations of polymer that would cause toxicity. The permittee shall provide the following information on each new polymer, before administering it, to EPA, MADEP, and NMFS: brand name, manufacturer, type of charge, charge density, and the molecular weight. Polymer may not be used in amounts which would equal or exceed the concentration shown to cause toxicity as determined above, after the initial dilution (70:1), and the amount of Percol-789 polymer added to the wastewater shall not exceed 2 mg/l at any time, and the amount of polymer other than Percol-789 added to the wastewater shall not exceed 2 mg/l at any time unless the permittee has demonstrated to the satisfaction of EPA, MADEP, and NMFS that a higher level will not cause toxicity. Any information supporting such a demonstration shall be submitted to EPA, MADEP, NMFS, and NOS, and EPA and MADEP will make their determination after consulting with NMFS and NOS. In addition to the requirement described under Part I.1.a.10.(a) of this permit, the permittee shall perform three (3) toxicity tests as described under Part I.1.a.9., during the first usages of each new polymer. Toxicity test reports shall be submitted one month following the test procedure, and by the last day of the month.

*11. Report maximum and minimum daily rates and total flow for each operating date.

*12. The permittee shall use the modified method 680 with high resolution, (i.e., EPA's proposed modified method 680) to analyze the sample. Both congeners and total PCBs shall be reported. (Note: the modified method 680 shall be used, unless a better method with a lower detection level becomes available and is approved by EPA.)

*13. The effluent shall not exceed a geometric mean of 14000/100 ml fecal coliform bacteria organisms in samples collected during each week. The sampling point shall be prior to the entrance of the tunnel outfall. The permittee may simulate the distance of 850 feet into the outfall tunnel for this parameter.

*14. Not more than 10 percent of individual sample results collected in a given month shall exceed the maximum daily limit of 14000/100 ml, and not more than three (3) consecutive samples shall exceed 14000/100 ml.

*15. The MWRA shall continue to implement the existing Memorandum of Understanding (MOU) between the MWRA and the Massachusetts Division of Marine Fisheries (MADMF), and shall negotiate annual updates to this MOU unless MADMF determines that such an update is unnecessary in a particular year. The MOU shall include, but not be limited to, the following elements:

• A monitoring plan that produces data that meets the needs of the MADMF for classifying the overlying waters in MA Bay under the National Shellfish Sanitation Program, and meets the needs of the USFDA in evaluating the water quality of the federal waters of MA Bay with regard to the National Shellfish Sanitation Program.

• Notification procedures to be followed by the permittee in the event that any discharges that have the potential to impact any shellfish growing areas occur (i.e., Activation of auxiliary outfalls or CSOs, failure of chlorine delivery systems, or exceedance of fecal coliform bacteria limits included in this permit).

*16. If the MADMF and/or the USFDA determines in writing that the fecal coliform bacteria limit is

inadequate to ensure protection of shellfish resources, and EPA and/or the MADEP concur in writing, then the permittee shall meet the following limits:

Contingency Limits	Average Monthly	Average Weekly	Maximum Daily	Monitoring Frequency
Fecal Coliform Bacteria *a	200/100ml	200/100ml	400/100ml	3/day - grab

*a. The effluent shall not exceed a geometric mean of 200 fecal coliform bacteria organisms in any representative set of samples, and not more than 10 percent of the samples shall exceed 400 fecal coliform bacteria organisms per 100 ml. The sampling point shall be prior to the entrance of the tunnel outfall. The permittee may simulate the distance of 850 feet into the outfall tunnel for this parameter.

*17. The permittee shall write the number nine (9) in the "no discharge indicator" column on the discharge monitoring report each month next to the limits that are not in effect.

*18. All samples described in Part I.1.a. that are not required to be reported once per day shall be collected on Tuesday, Wednesday or Thursday, excluding holidays and the day before or after such a holiday. All samples described in Part I.1.a. shall be collected during normal business hours.

Part I.1., Continued:

b. In addition to the effluent and monitoring requirements listed in Part I.1.a. of this permit, the discharge shall not cause or contribute to an exceedance of the current state water quality standards, and/or jeopardize the likelihood of both the survival and recovery of any endangered or threatened species by reducing the reproduction, numbers, or distribution of that species and/or adversely affecting its critical habitat, and the permittee will ensure that the discharge meets water quality standards and complies with federal regulations (including 15 CFR §922.142) for the protection of the Stellwagen Bank National Marine Sanctuary.

c. The pH of the discharge shall not be less than 6.0 nor greater than 9.0 at any time to meet the criteria of 6.5 to 8.5 in the receiving water, and shall not change the pH of the receiving water more than 0.2 standard units outside of the normally occurring pH range. There shall be no change from background conditions that would impair any use assigned to class SA waters, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.

d. The effluent shall be free from floating, suspended and settleable solids in concentrations or combinations that would: (1) impair any use assigned to class SA waters, (2) cause aesthetically objectionable conditions, (3) impair the benthic biota, or (4) degrade the chemical composition of the bottom.

e. The effluent shall not cause or contribute to an exceedance of the water quality standard which requires that the receiving water shall be free from oil and grease and petrochemicals.

f. Nutrients in the effluent shall not cause accelerated or cultural eutrophication.

g. The effective date of the permit means 30 days after the date of signature.

h. The permittee shall use EPA approved methods listed under 40 CFR Part 136, unless otherwise specified or unless an alternative method is approved by EPA.

2. PRIOR NOTICE

The permittee shall provide at least a 30 day written prior notice to EPA, MADEP, NMFS, OMSAP (and its two Advisory Committees), and the public (on a free-access Internet website page and placement of hard copies in two permanent repositories - see also: Part I.20.e. of this permit) of the following:

a. Any significant change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW that may cause the POTW's discharge to cause or contribute to an exceedance of water quality standards in the receiving water.

b. For purposes of this paragraph, the permittee's prior notification report shall include information on:

(1) the quality and quantity of influent introduced into the POTW; and
(2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. TOXICS CONTROL

a. The permittee shall not discharge any pollutant, or combination of pollutants, in toxic amounts.

b. The total chlorine residual and/or other toxic components of the effluent shall not result in any demonstrable harm to aquatic life or cause or contribute to the exceedance of any water quality standard.

4. NUMERICAL EFFLUENT LIMITATIONS FOR TOXICANTS

EPA and the MADEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act, state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

5. REOPENER CLAUSE

EPA and MADEP reserve the right under A.4. Reopener Clause, Part II of this Permit, General Conditions, page 3 of 35, to make appropriate revisions to this permit in order to establish additional and/or modified effluent limitations for all pollutants based on new information derived from the monitoring program, to add nutrient requirements, or to add requirements necessary to prevent sediment impacts or impacts from the discharge of fresh water. EPA or the MADEP may, at any time during the life of this permit, review and modify modeling and monitoring program requirements, and may change those requirements based upon the receipt of new data.

6. MODIFICATIONS

If cause exists, as defined by 40 CFR 122.62, EPA may modify or revoke and reissue the permit following the procedures outlined in 40 CFR 124.5. MADEP may modify, suspend, or revoke the permit according to the procedures in 314 CMR 3.12 and 314 CMR 2.10.

7. AMBIENT MONITORING PLAN

a. The MWRA shall: (1) implement the monitoring plan described in Attachment N, (2) update, maintain, and run the three dimensional hydrodynamic water quality "Bays Eutrophication Model" developed in 1995 by Hydroqual and the USGS, on a routine basis (at least every year), for the purpose of predicting conditions caused by nutrient loading and in order to support decisions about the need for nutrient limits and the appropriate level of any such limit for the discharge, and (3) implement plume tracking, including the use of acoustical technology, to

understand the dilution available for the discharge. The MWRA has developed a scope of work for a food web model to characterize the seasonal abundance for important prey species of endangered species in the Massachusetts and Cape Cod Bays. EPA and the MADEP, in consultation with the OMSAP discussed below, shall provide the MWRA with comments on this scope of work. Within ninety (90) days after receipt of these comments, MWRA shall submit a revised scope of work for review by OMSAP, and

for approval by EPA and the MADEP. After receipt of the revised scope of work, EPA and the MADEP will determine whether implementation of the food web model is warranted. The food web model shall: (a) include phytoplankton, zooplankton, planktivorous fish and marine mammals including endangered whale species, (b) allow an evaluation of the strength and likelihood of potential stressors that may alter the food web, (c) be based on results of ongoing monitoring, special studies of plankton (phytoplankton and zooplankton) dynamics and any other current or historical research in Cape Cod Bay. The MWRA may choose to fulfill the obligations described in this paragraph by ensuring that these items are performed by another entity.

b. On or after March 31, 2000, and annually thereafter for the life of the Permit, EPA will review all available information, including the results of all on-going monitoring and special studies, and models, and develop any appropriate requirements for additional monitoring and modeling in Massachusetts and Cape Cod Bays. The permit may be modified to reflect these additional requirements.

c. The monitoring plan described in Attachment N may be modified as follows:

i. By November 15 of each year, the permittee shall submit a list of any proposed modifications to the monitoring plan, including any interim modifications which have become effective pursuant to paragraph I.7.c.iii below, to EPA, MADEP, and the public (See: Part I.20.e. of this permit), and shall publish the list in the Environmental Monitor for the purpose of soliciting public comment. These modifications shall become effective upon approval by EPA and the MADEP.

ii. EPA and the MADEP have created an independent panel of scientists to review monitoring data and advise EPA and the MADEP on key scientific issues related to this permit. This team of experts, called the Outfall Monitoring Science Advisory Panel (OMSAP), will conduct peer reviews of monitoring reports; evaluate monitoring data and advise EPA and the MADEP on the implications of that data; advise EPA and the MADEP on proposed modifications to the monitoring plan; and meet regularly with EPA and MADEP staff to ensure that any issues related to the MWRA discharge receive careful scientific attention. The OMSAP will play a key role in evaluating any exceedances of caution or warning levels, and in advising EPA and the MADEP as to whether the MWRA's discharge plays a role in such exceedances.

iii. The permittee may also propose interim modifications at any time. Such interim modifications will become effective thirty (30) days after the permittee provides written notice to EPA, MADEP, OMSAP, NMFS, and the public (See: Part I.20.e. of this permit), unless there is a written objection from EPA or the MADEP. Such approvals will be effective until EPA and the MADEP take action on the permittee's next annual submission.

iv. The results of all monitoring required by the ambient monitoring plan or the eutrophication model shall be reported to EPA, MADEP, OMSAP and NMFS, on a quarterly basis. Raw data shall be made available at the MWRA facility upon request by EPA, MADEP, OMSAP, NMFS, or any member of the public.

v. OMSAP or members of the public may propose changes to the ambient monitoring plan to EPA and the MADEP, who may modify this permit as deemed appropriate and necessary.

d. The MWRA shall perform the following lobster studies:

(1) MWRA conducted a suction sampling survey in the vicinity of the future outfall site during the summer of 1998 to sample shelter-restricted early benthic phase juvenile (EBP) lobsters. MWRA's proposed survey strategy was reviewed by the OMTF. Numbers of young-of-year could yield important

information about recruitment in this area before the new outfall goes on-line. If a properly designed survey finds no significant numbers of EBP juveniles in the vicinity of the future outfall site, issues and concerns about outfall impacts on those life stages will not be re-evaluated. If significant numbers of EBP juveniles are found, then the question of effluent toxicity to EBP juveniles shall be examined. The results of this survey were reviewed by the OMSAP, and final decisions shall be made by EPA and the MADEP.

(2) If there are significant numbers of EBP juveniles found in the vicinity of the future outfall site, then the MWRA shall develop a RFP for toxicity testing. The OMSAP shall review the RFP, have any proposals peer-reviewed, and shall be involved in evaluating the responses and in identifying an appropriate sampling strategy.

(3) MWRA shall continue to assist MADMF with the input and analysis of the 1997 lobster monitoring data and complete the literature search on the effects of chlorine on egg-bearing females.

(4) After the new OMSAP evaluates any new unsolicited proposals in terms of their importance in assessing the potential effects of treated effluent on egg-bearing female lobsters and planktonic lobster larvae, and if any proposals are deemed important by the OMSAP, an RFP will be issued by the MWRA.

e. EPA and MADEP will request that OMSAP investigate the need for additional red tide monitoring stations in Massachusetts Bay and Cape Cod Bay, to determine whether the MWRA discharge has an effect on the frequency or extent of red tides. If the OMSAP recommends to EPA and MADEP that additional monitoring is necessary, the permittee shall, within ninety (90) days, develop and submit a scope of work for such monitoring. This scope of work shall be submitted to EPA and the MADEP for approval. If necessary, this permit will be modified to incorporate additional red tide monitoring requirements. This section does not preclude the imposition of such requirements through any other mechanism, including enforcement action by EPA or MADEP. If required, MWRA may make arrangements with another entity to perform these activities.

8. CONTINGENCY PLAN (CP)

The MWRA shall implement the contingency plan described in Attachment O, as modified in Part I.8.e. below. The contingency plan may be further modified as described in Part I.8.c. and d.

a. The results of any monitoring, required by the contingency plan shall be reported to EPA, the MADEP, and the public (See: Part I.20.e. of this permit) on a yearly basis by November 15, except that if any parameter exceeds the corresponding early "caution level" or "warning level", the monitoring result shall be reported within five (5) days after the result becomes available. The MWRA shall make all reasonable efforts to provide results within ninety (90) days after the sampling event, and the MWRA shall obtain approval from EPA and the MADEP if the results will take longer than one hundred and fifty (150) days.

b. If any parameter exceeds the "warning level" mentioned above in Section 8.a., the MWRA shall: (1) determine whether there are any adverse environmental impacts from such exceedance, 2) evaluate the extent to which the MWRA discharge contributes to any such impacts, and (3) develop a plan and schedule to address such impacts to the extent caused by MWRA, including any necessary treatment, unless the MWRA demonstrates, to the satisfaction of EPA and the MADEP, that there is no reasonable likelihood that the MWRA discharge contribute**s** to such adverse environmental impacts. The OMSAP will play a key role in advising EPA and the MADEP's determination on these issues.

A report on these activities shall be submitted to EPA, MADEP, the OMSAP, and made available to the public, NMFS, FDA,and the National Ocean Service (NOS), every thirty (30) days, after the date the exceedance of the "warning level" is reported, until the exceedance has been remedied. The MWRA shall take any actions indicated as necessary by EPA to implement 8.b.(1),(2), and (3) above, within thirty days, unless the need for

further data collection and analysis makes this impracticable, in which case these actions shall be completed as quickly as feasible. If additional data collection will exceed sixty (60) days, MWRA shall provide notice of such delay to EPA and the MADEP. This section does not replace or preclude any other action by EPA or the MADEP, including modification or revocation of this permit, or enforcement action directed at increasing treatment of the effluent, terminating the discharge from the outfall, or any other appropriate remedy.

c. By November 15 of each year, the permittee shall submit a list of all proposed modifications to the contingency plan (including any interim modifications which have become effective pursuant to Part I.8.d.below) to EPA, MADEP, NMFS, FDA, NOS, OMSAP and the public (See: Part I.20.e. of this permit), and publish the list in the Environmental Monitor for the purpose of receiving public comment. These modifications shall become effective upon approval by EPA and the MADEP.

d. The permittee may also propose interim modifications at any time. Such interim modifications will become effective thirty (30) days after the permittee provides written notice to EPA, MADEP, NMFS, FDA, NOS, OMSAP, and the public (for the purpose of soliciting public comment) (See also: Part I.20.e. of this permit), unless there is a written objection from EPA or the MADEP. Such modifications will be effective until EPA and the MADEP take action on the permittee's next annual submission.

e. The following three elements shall be added to the plan:

i. Technical Survey - The permittee shall maintain a comprehensive technical survey of effective treatment technologies for nitrogen removal which are applicable to the Deer Island treatment facility. The technical survey shall be updated at least annually for the duration of the permit, and shall be submitted to EPA and MADEP at least once per year. The survey shall be designed to facilitate the speedy selection and implementation of nitrogen removal technology if necessary.

ii. Development of Data Concerning Wastewater Quality - The permittee shall implement a monitoring program to characterize the quality of wastewater streams within the treatment plant. The plan shall be designed to produce data which would facilitate the selection of nitrogen removal technology and to facilitate the design of nitrogen removal facilities, if necessary. The plan shall be submitted to EPA, MADEP, and OMSAP within ninety (90) days of the effective date of the permit for approval.

iii. Outfall Contingency Simulation - The permittee shall develop (within one hundred and twenty (120) days of the effective date of the permit) and implement (within 1 year of the effective date of the permit) an outfall contingency simulation plan. The plan shall simulate the notification and decision making process that would occur in the future in the event of unexpected problems at the treatment facility or in Massachusetts Bay. The simulation shall involve all relevant state and federal agencies and shall include an evaluation process. The plan shall be submitted to EPA, MADEP, NMFS, FDA, NOS, OMSAP, and the public (for the purpose of soliciting public comment) (See: Part I.20.e. of this permit), within one hundred and twenty days (120) days of the effective date of the permit for approval by EPA and the MADEP. The MWRA shall perform a dry run of two different types of scenarios, before the commencement of the discharge. (One dry run of a treatment plant chlorination system upset, and one dry run of a red tide event in MA Bay or Cape Cod Bay.)

f. The MWRA shall hold in reserve two funds: (1) thirty-one million dollars ($31M) in an Operating Reserve to be available for unexpected operating costs, including monitoring, and (2) fifty million dollars ($50M) in a Renewal and Rehabilitation Reserve to be available for unanticipated capital expenses, such as new treatment requirements. These provisions may be satisfied with reserves established under the provisions of and for the purposes outlined in the permittee's General Revenue Bond Resolution Sections 514, 712 and 714(c).

g. Prior to the use of outfall TO1, the MWRA shall submit a plan to EPA, MADEP, and OMSAP for maintaining the physical integrity and capacity of the existing Deer Island outfall system, and explaining how alternative discharge scenarios (including discharge through existing Deer Island outfalls, if necessary) could be implemented. These alternative discharge scenarios must be considered as an option under the MWRA's contingency plan, within the section that outlines a process for developing responses to any future problems. The MWRA shall maintain all facilities in good working order to allow for reestablishment of a discharge through the existing outfalls if deemed necessary.

9. BEST MANAGEMENT PRACTICES PLAN (BMP)

The permittee shall develop and implement a Best Management Practices plan, as approved and/or modified by EPA and the MADEP, which achieves the stated objectives and which conforms to the following requirements:

a. General Objectives

The objectives of the plan are to: (1) minimize the potential for violations of the terms of the permit, (2) protect the designated water uses of the surrounding water bodies, and (3) mitigate pollution from materials storage areas, site runoff, improper use of waste disposal system, accidental spillage, etc.

b. Implementation

The BMP plan shall be developed and made available at the respective MWRA sites for EPA and the MADEP approval, and for examination by the public. The plan shall be developed within one hundred and eighty (180) days of the effective date of this permit, and it shall reflect activities at Deer Island, all headworks facilities, all CSO treatment facilities, and the sludge pelletizing area at Fore River. Implementation of the plan shall commence no later than six (6) months after the approval date of the plan.

c. General Requirements

The BMP plan shall:

i. Be documented in narrative form and shall include any necessary plot plans, drawings or maps.

ii. Establish specific objectives for the control of toxic and hazardous pollutants.

(1) Each facility component or system will be examined for its potential for causing a release of toxic or hazardous pollutants to waters of the United States due to equipment failure, improper operation, contaminated piping, natural phenomena such as rain or snowfall, etc. Locations at which bypasses of the treatment system may occur, as well as projected conditions under which a bypass may be necessary, will be included within the plan.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances to result in a release of toxic or hazardous pollutants that create an impact upon waters of the United States, the plans shall include a prediction of the direction, rate of flow and total quantity of toxic or hazardous pollutants which could be discharged from the facility as a result of each condition or circumstance.

iii. Establish specific best management practices to meet the objectives identified under Paragraph 9.c.ii. of this section, addressing each component or system capable of causing a release of toxic or hazardous pollutants to the waters of the United States. For example, specific practices to minimize and/or control the use of bypasses shall be outlined; prohibitions on the use of pesticides, herbicides, fertilizers or other toxic or hazardous pollutants,

draining or flushing of lines to roadways, catch basins, and storm sewers, shall be identified; measures to prevent and prohibit the dumping or leaking of solvents, fuel or motor oil, and PCBs from hydraulic fluid into a receiving water, onto the ground, parking areas or into the waste treatment system shall be identified.

iv. Establish specific best management practices for application during any construction activity, to minimize the impact of construction on the receiving water. For example, specific practices to minimize adverse water quality impacts from site runoff, erosion, spills, etc., shall be identified.

v. Be reviewed by plant engineering staff and the plant manager.

d. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document" and shall include the following baseline BMP's as a minimum:

i.	Inspections and Records	v.	Preventative Maintenance
ii.	Good Housekeeping	vi.	Reporting of BMP Incidents
iii.	Security	vii.	Materials Compatibility
iv.	BMP Committee	viii.	Risk Identification and Assessment

e. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Clean Water Act and 40 C.F.R. Part 112, and may incorporate any part of such plans into the BMP plan by reference.

f. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA - 40 U.S.C. 6901 et seq.) and in lieu of RCRA, M.G.L. c.21C and 310 CMR 30.000 as well as M.G.L. c.111 §§ 150A and B and 310 CMR 19.000.

g. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available to EPA, the MADEP, and the public upon request.

h. BMP Plan Modification

Within sixty (60) days of a change in the facility which materially increases the potential for the ancillary activities to result in a release of hazardous or toxic pollutants, the permittee shall: (1) notify EPA and the MADEP, (2) notify the public by placing this information in a free-access internet website page and by placing hard copies in two permanent repositories, (3) develop an amendment to the BMP plan, and (4) make the

amendment available to EPA and the MADEP for approval and/or modification.

i. Effectiveness of the BMP Plan

If the BMP Plan proves to be ineffective in achieving the general objective of preventing the release of toxic or hazardous pollutants that create an impact upon waters of the United Sates and the specific objectives and requirements under Paragraphs 9.c.ii. and iii. above, the permit and/or the BMP Plan may be modified to incorporate revised BMP requirements.

10. WATER CONSERVATION

1. The permittee shall develop, submit, and implement a comprehensive water conservation plan that will encompass all of the communities within the area served by the Deer Island and Nut Island treatment facilities. The water conservation plan and a schedule for implementation shall be submitted to EPA and the MADEP for approval within ninety (90) days of the effective date of this permit. The permittee shall implement the plan, along with any modifications required by EPA or MADEP, no later than 6 months after the plan is approved by both agencies. EPA and the MADEP will make final decisions on this plan after a thorough consultation process with the permittee.

   a. In developing this plan, the permittee shall consider at least the following elements:

      i. Develop a water conservation fact sheet that enables individual homeowners to calculate the annual cost of sewer service based on a range of per capita water use levels. Distribute the water conservation fact sheets to all communities within the MWRA sewer service area for distribution with all water and sewer bills.

      ii. Continue to promote industrial water conservation through an incentive-based industrial permit fees program (which encourages reduced sewer flows and pollutant loads), evaluations of specific interim discharge limits (as appropriate) for industrial dischargers who are seeking to reduce flow, and referrals of permitted sewer users to the Massachusetts Office of Technical Assistance for guidance on water conservation and pollution prevention opportunities, and consider the feasibility of implementing mass-based pretreatment local limits for all industrial users within the MWRA treatment system.

      iii. Continue a water conservation educational outreach program that will encourage all communities within the MWRA sewer service area to improve public awareness, and consider expanding this program. Provide informational documents to all interested parties upon request.

      iv. Continue, and consider expanding, the development of public education materials on home water conservation for wider distribution, and update the materials periodically. Materials shall emphasize the potential cost-savings of water conservation techniques and devices, and shall be made available to phone callers, MWRA Internet Home Page requesters, as well as various organizations, landlord and tenants groups, all communities within the MWRA sewer service area, and all community water departments within the MWRA sewer service area.

      v. Continue to make available and distribute summaries of ICI water audits and ICI guidance information developed by MWRA to all communities within the MWRA sewer service area.

      vi. Continue distributing water conservation kits (faucet aerator, toilet dam, and low-flow showerhead) to homes missed by Operation Watersense during the years 1989-1993, in all of the communities within the MWRA sewer service area.

vii. Continue to provide limited technical assistance on conservation measures to low-income residential facilities, non-profits, municipalities, and community organizations, in all communities within the MWRA sewer service area.

viii. Develop and implement a program that will require MWRA communities to achieve 100% metering of all service connections, and perform ongoing meter calibration.

ix. Continue to emphasize the theme of water conservation to school teachers and school children participating in the School Education Programs in all communities within the MWRA sewer service area.

x. Continue to encourage communities to retrofit public buildings in all communities within the MWRA sewer service area with water saving devices, and consider subsidizing or otherwise supporting such efforts.

b. The plan shall be designed to achieve continued reductions in wastewater volume per capita over the life of the permit.

2. MWRA shall consider preparation and issuance of yearly water conservation "report cards" for all of their member municipalities, that are both "MWRA water and sewer communities".

3. A summary report shall be submitted to EPA and the MADEP by September 1 of each year that includes implementation activities for water conservation objectives for the past fiscal year, a review of the effectiveness of these activities, and a list of activities planned for the next fiscal year.

4. By the end of the fourth year after the effective date of the permit, the permittee shall submit a report to EPA and MADEP which evaluates growth and water/wastewater use within the MWRA sewer service area, and projects future growth; evaluates the ability of the Deer Island treatment plant to adequately process flows over a thirty-year period; and evaluates the potential for water conservation, gray-water recycling, localized treatment facilities, and other options to reduce flows to the Deer Island treatment plant.

11. POLLUTION PREVENTION

a. The permittee shall develop, submit for EPA and MADEP approval, and implement a comprehensive pollution prevention plan that will address households and permitted industries in the MWRA sewer service area. (See also: Part I.20.e. of this permit.)

b. The pollution prevention plan shall be available to NMFS and NOS, and submitted to EPA and the MADEP for approval within one hundred and twenty (120) days of the effective date of this permit. The permittee shall implement the plan, along with any modifications required by EPA or MADEP, no later than 6 months after the plan is approved by either agency. In developing this plan, the permittee shall include at least the following elements, unless equivalent or greater benefits can be more effectively achieved through another mechanism.

i. Identify and monitor key industrial sectors and operations where PCBs are expected to be found based on previous visual inspections, sampling data and research on specific industries[1].

[1] MWRA regulations at 360 CMR Part 10.024(1)(b) prohibit the discharge of PCBs into the MWRA sewerage system. MWRA's Toxic Reduction and Control Department has set an enforcement limit of 1 ppb for PCBs in the system.

At present, data from the MWRA, and data from other sources, indicate that PCBs have been associated with the following industrial activities:

Laboratories	Gas/Oil Separators	Construction Site Dewatering	NPL Sites
Incinerators	Food Processors	21E Superfund Sites	Waste Oil Handlers
Salvage Yards	Landfills	Metal Pressing/Forming Operation	

ii. Because PCBs may be contributed from many industrial processes, principally through oils which are contaminated with PCBs and may be rinsed and discharged to the sewer system, MWRA shall include PCBs as a sampling requirement for facilities with known or suspected sources of PCBs. In addition, MWRA shall conduct periodic reviews of its industrial database, including analytical scans of suspected sources, to determine whether PCBs are being discharged in detectable concentrations. In appropriate cases, enforcement action shall be taken by MWRA against facilities found to be in violation of MWRA Sewer Use Regulations. MWRA shall either assist industries to identify alternative processes and/or materials to reduce or eliminate PCB discharges to the sewer system, or, refer permitted industries to the Massachusetts Office of Technical Assistance and/or other applicable groups for possible pollution prevention opportunities.

iii. Continue to utilize its regional inspections staff to promote the proper maintenance and cleaning of oil/gas separators due to the potential for these structures to release PCBs into the sewer system. The MWRA shall continue to prioritize oil/gas separator inspections to address the most likely problem sources, and conduct spot sampling of separators to determine whether PCBs are found in detectable concentrations. Enforcement actions shall be taken for sources which are found to be in violation of MWRA Sewer Use Regulations.

iv. Encourage the use of proper maintenance practices for floor/facility washing operations for industries known or suspected to have residual PCBs on-site.

v. The MWRA shall evaluate the feasibility of using MADEP and EPA hazardous waste and MADEP 21E/MCP sites databases to identify the potential for releasing PCBs into the combined or separate portions of the sewer system. If the MWRA identifies potential sites within the MWRA service area, it shall initiate discussions with EPA and the MADEP to strategize solutions.

vi. Require all companies within the MWRA system to certify that they are in compliance with all applicable laws and regulations, with respect to chemical storage on site, before granting an MWRA permit.

vii. Require all companies within the MWRA system to certify that there is adequate spill containment for all mechanical processes on site before granting an MWRA permit.

viii. The MWRA shall continue to implement a pollution prevention outreach program that enables individual homeowners to take steps to prevent pollution from entering the MWRA wastewater collection system, and develop a pollution prevention fact sheet that enables individual homeowners to take steps to prevent pollution from entering into the MWRA wastewater collection system.

(1) The permittee shall make the pollution prevention fact sheets available to all communities and interested homeowners in the MWRA sewer service area, and encourage communities to include notices with the water and sewer bills of the availability of this fact sheet.

(2) The permittee's pollution prevention fact sheet shall include a list of ideas that should be implemented with a list of pollution prevention hotline numbers. For specific examples, see Attachment P of this

permit.

(3) The permittee shall distribute a brochure describing the effects of household hazardous waste (HHW) on the environment and listing proper disposal practices as well as nontoxic alternatives to anyone in the MWRA service area that requests a copy.

(4) The permittee shall develop an HHW WEB Page on the Internet that gives similar information on HHW, pollution prevention, and lists a telephone number for more information.

(5) The permittee shall continue to administer the school curriculum that covers the wastewater treatment process and the importance of individuals keeping the harbor clean by not polluting.

(6) The permittee shall continue to provide outreach to schools and community groups concerning the Boston Harbor Cleanup and how they can practice pollution prevention at home through reducing their use of hazardous household products and proper disposal of HHW.

ix. The permittee shall continue to employ pollution prevention through the MWRA's enforcement response plan which shall allow for regulated facilities to investigate, develop, and implement source reduction and pollution plans, in addition to pretreatment systems, to achieve compliance with MWRA's local limits or applicable federal categorical standards.

x. The permittee shall consider working with other organizations, such as the New England Waste Management Officials Association, the Massachusetts Office of Technical Assistance, Massachusetts Executive Office of Environmental Affairs, the North American Hazardous Materials Management Association, the MADEP, and the EPA on pollution prevention for homes and permitted industries. The permittee shall submit an annual report on the results of ongoing and new initiatives to EPA and the MADEP. This report may be incorporated into the annual Pretreatment Report described under section 15.b. of this permit.

12. GROUNDWATER REMEDIATION SITE WATERS

The MWRA shall conduct a review of its current prohibition on the discharge of groundwater remediation site waters into the MWRA sewer system. This review will include an evaluation of treatment technologies, potential flows and pollutant loads which may result from a relaxation of MWRA's prohibition, and projected impacts to MWRA's collection and treatment system. If it is determined that the current prohibition should be modified, MWRA will develop proposed criteria to be used in the evaluation of permit applications seeking authorization to discharge remediation site waters and will submit the required revision to EPA for review and approval as a significant pretreatment program change, as required by 40 CFR 403.18. (See also: Part I.20.e. of this permit.)

13. SLUDGE CONDITIONS

a. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the Clean Water Act (CWA) Section 405(d) technical standards.

If an applicable management practice or numerical limitation for pollutants in sewage sludge more stringent than existing federal and state regulations is promulgated under Section 405(d) of the CWA, this permit shall be modified or revoked and reissued to conform to the promulgated regulation.

b. The permittee shall give prior notice to the Director of any change(s) planned in the permittee's sludge use or disposal practice.

c. A change in the permittee's sludge use or disposal practice is a cause for modification of the permit. It is a cause for revocation and reissuance of the permit if the permittee requests or agrees.

d. Pollutant limitations

i. The maximum concentration of metals in the sewage sludge that is applied to the land shall not exceed the following (dry weight basis):

Arsenic.....75 mg/kg
Cadmium.....85 mg/kg
Copper.....4300 mg/kg
Lead.....840 mg/kg
Mercury.....57 mg/kg
Molybdenum.....75 mg/kg
Nickel.....420 mg/kg
Selenium.....100 mg/kg
Zinc.....7500 mg/kg

ii. The sewage sludge shall not be applied to the land if any of the pollutant concentrations in Part I.13.d.i. are exceeded.

e. The following conditions apply to bulk or bagged sewage sludge which is sold or given away which meets the pollutant concentrations of Part I.13.e.i., Class A pathogen reduction and one of vector attraction reduction alternatives 1 through 8:

i. The monthly average concentration of metals in the sewage sludge shall not exceed the following (dry weight basis):

Arsenic.....41 mg/kg
Cadmium.....39 mg/kg
Copper.....1500 mg/kg
Lead.....300 mg/kg
Mercury.....17 mg/kg
Nickel.....420 mg/kg
Selenium.....100 mg/kg
Zinc.....2800 mg/kg

ii. The permittee shall develop and retain the following information for five years:

(1) The maximum concentration of each pollutant listed in Part I.13.d.i. and the monthly average concentration of each pollutant listed in Part I.13.e.i.

(2) The permittee shall sign and retain on file the following certification statement:
"I certify, under penalty of law, that the Class A pathogen requirements in §503.32(a) and the vector attraction reduction requirements in [insert one of the vector attraction reduction requirements in §503.33 (b)(1) through (b)(8)] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(3) A description of how the Class A pathogen requirements are met.

(4) A description of how the vector attraction reduction requirements are met.

f. The following conditions apply to bagged material which meets Class A pathogen reduction, one of the vector attraction reduction alternatives 1 through 8, but does not meet the monthly average pollutant concentrations of Part I.13.e.i.:

The permittee shall meet the following requirements:

i. The product of the concentration of each pollutant in the sewage sludge and the annual whole sludge application rate for the sewage sludge shall not cause the annual pollutant loading rate for the pollutant to be exceeded. The annual pollutant loading rates are specified below (kilograms per hectare per 365 day period):

Arsenic	2.0
Cadmium	1.9
Copper	75.0
Lead	15.0
Mercury	0.85
Nickel	21.0
Selenium	5.0
Zinc	140.0

ii. The annual whole sludge application rate shall be determined in the following manner:

(1) Analyze a sample of the sewage sludge to determine the concentration for each pollutant listed in Part I.13.

(2) Using the pollutant concentrations from determined from Part I.13.f.ii.(1) and the annual pollutant loading rates from Part I.13.f.i., calculate the annual whole sludge application rate using the following equation:

$$AWSAR = \frac{APLR}{C \times 0.001}$$

Where:

AWSAR = Annual whole sludge application rate in metric tons per hectare per 365 day period (dry weight basis)

APLR = Annual pollutant loading rate in kilograms per hectare per 365 day period.

C = Pollutant concentration in milligrams per kilogram of total solids (dry weight basis)

0.001 = Conversion factor

(3) The AWSAR for the sewage sludge is the lowest ASWAR calculated in Part I.13.f.ii.(2).

iii. Either a label shall be affixed to the bag or other container in which the sewage sludge is sold or given away, or an information sheet shall be provided to any person who receives the sewage sludge.

iv. The label or information sheet shall contain the following information:

(1) The name and address of the person who prepared the sewage sludge.
(2) A statement that application of sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet.
(3) The annual whole sludge application rate which does not cause the annual pollutant loading rates in Part I.13.f.i. to be exceeded.

v. The permittee shall develop and retain the following information for five years:

(1) The annual whole sludge application rate that does not cause the annual pollutant loading rates in Part I.13.f.i. to be exceeded.

(2) The concentration of each pollutant in Part I.13.d.i. in the sewage sludge.

(3) The permittee shall sign and retain on file the following certification statement:
"I certify, under penalty of law, that the management practice in §503.14(e) {Part I.13.f.iii. and Part I.13.f.iv. of this permit}, the Class A pathogen requirement in §503.32(a), and the vector attraction reduction requirement in [insert one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8)] have been met. The determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practice, the pathogen requirements, and the vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine or imprisonment."

(4) A description of how the Class A pathogen requirements are met.

(5) A description of how the vector attraction reduction requirements are met.

g. The following conditions apply to bulk sewage sludge which is subject to the cumulative pollutant loading rates of §503.13(b)(2), Part I.13.g.vii.; and meets either Class A or Class B pathogen reduction, and one of the vector attraction reduction alternatives 1 through 8; or meets the monthly average concentration in Part I.13.e.i., Class B pathogen reduction, and one of the vector attraction reduction alternatives 1 through 8:
The permittee shall comply with the following general requirements:

i. Bulk sewage sludge shall not be applied to the land except in accordance with 40 CFR Part 503 Subpart B.

ii. Bulk sewage sludge, subject to cumulative loading rates of 503.13(b)(2), shall not be applied if any of the cumulative pollutant loading rates in Part I.13.g.vii. have been reached on the site.

iii. The permittee shall provide the person who applies the bulk sewage sludge written notification of the concentration of total nitrogen (as N on a dry weight basis) in the bulk sewage sludge.

iv. When the permittee provides the bulk sewage sludge to a person who applies the bulk sewage sludge, the permittee shall provide the person who applies the bulk sewage sludge notice and necessary information to comply with the requirements of 40 CFR Part 503 Subpart B. Notice and necessary information shall include the information in Attachment I, Applier's Responsibilities.

v. When the permittee provides the bulk sewage sludge to a person who prepares the bulk sewage sludge, the permittee shall provide the person who prepares the bulk sewage sludge notice and necessary information to comply with the requirements of 40 CFR Part 503 Subpart B.

vi. When bulk sewage sludge is applied in a state other than Massachusetts, the person who prepares the sewage sludge shall provide notice to the permitting authority for the state in which the sewage sludge will be applied. Notice shall be given prior to the initial application and shall contain the following information:

(1) The location of each site by either street address or latitude and longitude.
(2) The approximate period of time the bulk sewage sludge will be applied to each site.
(3) The name, address, telephone number and National Pollutant Discharge Elimination System permit number (if applicable) for the person who prepares the bulk sewage sludge.
(4) The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if applicable) for the person who applies the bulk sewage sludge.

vii. The cumulative pollutant loading rates for each site shall not exceed the following (kilograms per hectare):

Arsenic.....41
Cadmium.....39
Copper.....1500

Lead.....300
Mercury.....17
Nickel.....420
Selenium.....100
Zinc.....2800

viii. The permittee shall develop and maintain the following information for five years:

(1) The concentration of each pollutant listed in Part I.13.d.i. in the bulk sewage sludge.

(2) The permittee shall sign and retain on file the following certification statement:

"I certify, under penalty of law, that the Class A [or Class B, which ever is appropriate] pathogen requirement in §503.32(a) [or §503.32(b)] and the vector attraction reduction requirement in [insert one of the vector attraction reduction requirements in §503.33(b)(1) through (b)(8), if one of those requirements is met] have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen reduction requirements [and vector attraction reduction requirement, if applicable] have been met. I am aware that there are significant penalties for false certification including the possibility of fine or imprisonment."

(3) A description of how the Class A or Class B pathogen requirements are met.

(4) When the permittee is responsible for meeting the vector attraction reduction requirements, a description of how the vector attraction reduction requirements are met.

ix. When the permittee is the applier, the permittee shall comply with the requirements in Attachment I.

x. The permittee shall develop a methodology for identification of suitable land application sites not identified at the time of permit application. The guidelines shall:

(1) Identify site selection criteria;
(2) Describe how sites will be managed; and
(3) Provide for advance public notice as required by state and local laws, and notice to landowners and occupants adjacent to or abutting the proposed land application site.

h. Bulk or bagged material which is sold or given away for use on lawns or home gardens shall meet Class A pathogen requirements. Bulk material not sold or given away for use on lawns or home gardens may meet either Class A or Class B pathogen requirements. Pathogen reduction alternatives are specified in Attachment J.

i. The permittee shall meet one of the vector attraction reduction requirements specified in Attachment K. When Class A pathogen requirements are met, the permittee must meet vector attraction reduction alternatives 1 through 5 either at the same time or prior to meeting the pathogen requirement. Any bulk or bagged material meeting Class A pathogen reduction requirements which is sold or given away to the public may only utilize vector attraction reduction alternatives 1 through 8.

j. The permittee shall monitor the sewage sludge for the pollutants in Part I.13.d.i., the pathogen density and the vector attraction reduction requirements at the minimum frequency of: 1/month.

k. The permittee shall report the information in Parts I.13.e.ii.(1)-(4); I.13.f.v.(1)-(5); and I.13.g.viii.(1)-(4) annually on February 19. Reports shall be submitted to EPA at the address in the Monitoring and Reporting section of this permit.

l. All sewage sludge sampling and analysis procedures shall be in accordance with the procedures detailed in Attachment L.

m. The following conditions shall be met when sewage sludge is placed in a municipal solid waste landfill:

i. The permittee must dispose of the sewage sludge in a landfill which is in compliance with 40 CFR Part 258.

ii. Sewage sludge disposed of in a municipal solid waste land fill shall not be hazardous. The Toxicity Characterization Leachate Protocol (TCLP) shall be used as demonstration that the sludge is non-hazardous.

iii. The sewage sludge must not be a liquid as determined by the Paint Filter Liquids Test method (Method 9095 as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA publication No. SW-846.

14. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS:

a. Pollutants introduced into POTWs by a non-domestic source (user) shall not Pass Through the POTW or Interfere with the operation or performance of the works.

b. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users as appropriate, which together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure continued compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond. By January 31, 2000, the permittee shall prepare and submit a written technical report to EPA analyzing local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. The Permittee shall carry out the local limits analysis in accordance with EPA Guidance Manual for the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program (December, 1987). The permittee shall make this analysis, and any resulting changes in local limits, available on its website page and in its repositories . (See also: Part I.20.e. of this permit.)

15. INDUSTRIAL PRETREATMENT PROGRAM

a. MWRA shall implement an industrial pretreatment program (IPP) as required by 40 CFR Part 403. The industrial pretreatment program shall be operated in accordance with MWRA's approved pretreatment program plan and 40 CFR Part 403. At a minimum, MWRA shall perform the following activities in implementing and operating its industrial pretreatment program:

i. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards as required by 40 CFR Part 403. At a minimum, all significant industrial users (SIU) shall be sampled and inspected at the frequency established in the approved IPP but in no case less than the minimum frequency required by 40 CFR Part 403. Additionally, all facilities shall maintain adequate records.

ii. Issue or renew 90% of all necessary permits for SIUs within 120 days after their expiration date or application, whichever is later, and 100% within 180 days after their expiration or application, whichever is later.

iii. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement; and maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

b. The permittee shall provide the EPA and the MADEP with an annual report required by 40 CFR 403.12(i) by October 31 of each year for the MWRA reporting period of July 1 - June 30. The annual report shall be consistent with the format described in Attachment G of this permit.

PART I

16. COMBINED SEWER OVERFLOWS (CSO) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

During the period beginning with the effective date of the permit and lasting through expiration date of the permit, the permittee is authorized to discharge from the following outfall serial numbers: 201, 203, 205, 205A, 207, 209, and 211:

a. Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to discharge. (See also Attachment B of the Permit. Note: Outfalls 201 and 205A discharge into Class B designated waters, outfalls 209 and 211 discharge into SB designated waters, and outfalls 203, 205, and 207 discharge into SB(CSO) designated waters.)

Effluent Characteristic	Discharge Limitation		Monitoring Requirement	
	Discharge Event Average	Discharge Event Maximum	Measurement Frequency	Sample Type
Rainfall/Precipitation[*7]	Report	Report	Per Discharge Event	Total
Flow, MGD	Report	Report	Continuous	See Footnote[*3]
TSS, mg/l [*8b]				
Outfalls 201,203,207,209,211,205A	Report	Report	4/Year	See Footnote[*4]
Outfall 205[*8a]	Report	Report	4/Year	See Footnote[*4]
BOD, mg/l [*8b]				
Outfalls 201,203,205A,207,209,211	Report	Report	4/Year	See Footnote[*4]
Outfall 205[*8a]	Report	Report	4/Year	See Footnote[*4]
Chlorine, Total Residual, mg/l				
Outfalls 201,203,205A,207,209,211	0.1	0.25(max. hourly)	See Footnotes[*4,*6b]	Grab
Outfall 205	0.1	0.25(max. hourly)	See Footnotes[*4,*6a]	Grab
LC_{50}				
Outfall 201,205A[*1,*9]	---	Report	2/Year[*12]	Composite[*11]
Outfalls 203,207,209, and 211[*2,*9]	---	Report	2/Year[*12]	Composite[*11]
Outfall 205[*2,*9]	---	Report	2/Year[*12]	Composite[*10]
pH				
Outfall 201, 205A	See Part I.16.c. below.		4/Year	Grab
Outfalls 203,205,207,209, and 211	See Part I.16.d. below.		4/Year	Grab
Fecal Coliform Bacteria				

Outfalls 201,203,205A,207,209,211	Shall meet MA Water Quality Standards;	See Footnotes[*4,*5b]	Grab
Outfall 205	Shall meet MA Water Quality Standards;	See Footnotes[*4,*5a]	Grab

Note: All CSO outfalls listed on Attachment B, must meet State Water Quality Standards or comply with variances. Footnotes begin on Page 24 of this permit.

Part A.16.a., Footnotes:

*1. Perform acute toxicity testing, biannually, using the Inland Silverside (Menidia beryllina) and the Mysid Shrimp (Mysidopsis bahia) in accordance with test procedures and protocols specified in Attachment Q of the permit. Samples shall be collected during the first flush or as a composite over the duration of the overflow, not to exceed twenty-four (24) hours.

*2. Perform acute toxicity testing, biannually, using the Daphnid (Daphnia pulex) and the Fathead Minnow (Pimpephales promelas) in accordance with test procedures and protocols specified in Attachment R of the permit. Samples shall be collected during the first flush or as a composite over the duration of the overflow, not to exceed twenty-four (24) hours.

*3. Report the peak flow rate, duration, and volume for each discharge event. Report the duration and volume of flow (or, if impracticable, report modeling results) that bypasses treatment for each discharge event.

*4. After sufficient data has been collected to characterize the discharge variability at each CSO facility, the permittee may submit an alternative CSO monitoring plan to EPA and the MADEP. Any alternative plan must be capable of demonstrating compliance with the requirements set forth in Part I.16., and must provide data representative of all CSO discharges. If approved by EPA and the MADEP, the permittee shall implement the alternative plan in place of the CSO monitoring described in Part I.16.

*5a. During the first year that this permit is effective, the permittee shall sample four discharge events. For each such event, a grab sample shall be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow. Then, after the first year, the permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow. During the first year only, the first sample shall be held and subsampled hourly for bacteria for the duration of the overflow.

*5b. The permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow. During the first year only, the first sample shall be held and subsampled hourly for bacteria for the duration of the overflow.

*6a. During the first year that this permit is effective, the permittee shall sample four discharge events. For each such event, a grab sample shall be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow. Then, after the first year, the permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow.

*6b. The permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow.

*7. Report the National Weather Service data for Boston per discharge event. Report intensity, duration, and volume of each rain event.

*8a. During the first year that this permit is effective, the permittee shall sample four discharge events. For each such event, a grab sample shall be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. Then, after the first year, the permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. All BOD samples collected shall be composited.

*8b. The permittee shall sample four discharge events per year, as follows: a grab sample shall be collected within the first two hours, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. All BOD samples collected shall be composited.

*9. If the discharge fails an LC_{50} = 100% toxicity test, the permittee shall perform a second acute toxicity test within 30 days, or if weather does not permit, as soon as possible. If the discharge fails the second LC_{50} = 100% toxicity test, the permittee shall investigate the source of the toxicity and submit a toxicity assessment and reduction plan of the discharge based on representative data, to EPA and the MADEP within 6 (six) months of the second failed test. Within 90 days of EPA or the MADEP approval of this plan, the permittee shall initiate the plan and begin follow-up biomonitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan shall not be complete until the toxicity has been eliminated from the effluent. Also, the results of the assessment study, and the results of the LC_{50} testing requirement set forth in this permit, will serve to indicate whether the existing limitations are sufficient, or whether more stringent limitations or other treatment technologies are required.

*10. During the first year that this permit is effective, the permittee shall sample two discharge events. For each such event, a grab sample shall be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. Then, after the first year, the permittee shall sample two discharge events per year, as follows: a grab sample shall be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours.

*11. The permittee shall sample two discharge events per year, as follows: a grab sample shall be collected within the first two hours, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours.

*12. Toxicity test reports shall be submitted one month following the test procedure, and by the last day of the month. As an example, if a March toxicity test is performed, the test result shall be submitted by April 30th.

Part I.16., Continued:

b. In addition to the effluent and monitoring requirements listed in Part I.16.a. on pages 27, 28 and 29 of this permit, the discharge shall not cause or contribute to an exceedance of state water quality standards.

c. The pH of the discharge shall not be less than 6.5 nor greater than 8.3 at any time, and shall not change the pH of the receiving water more than 0.5 standard units outside of the normally occurring pH range. There shall be no change from background conditions that would impair any use assigned to this class, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.

d. The pH of the discharge shall not be less than 6.5 nor greater than 8.5 at any time, and shall not change the pH of the receiving water more than 0.2 standard units outside of the normally occurring pH range. There shall be no change from background conditions that would impair any use assigned to this class, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.

e. During wet weather, the permittee is authorized to discharge storm water/wastewater from combined sewer outfalls listed in Attachment B, subject to the following effluent limitations:

i. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) to control and abate conventional pollutants and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. EPA and MADEP have made a Best Professional Judgement (BPJ) determination that BPT, BCT, and BAT for combined sewer overflows (CSOs) include the implementation of Nine Minimum Controls (NMC) specified below.

(1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows.

(2) Maximum use of the collection system for storage.

(3) Review and modification of the pretreatment program to assure CSO impacts are minimized.

(4) Maximization of flow to the POTW for treatment.

(5) Prohibition of dry weather overflows from CSOs.

(6) Control of solid and floatable materials in CSOs.

(7) Pollution prevention programs that focus on contaminant reduction activities.

(8) Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.

(9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

The permittee shall implement the nine minimum controls in accordance with the MWRA's "Implementation of Nine Minimum Controls for Combined Sewer Overflows" document, dated January 1, 1997, by the effective date of this permit.

ii. This permit may be reopened to add additional technology-based requirements based on information assembled during the MWRA's development of a long-term CSO control plan.

f. The permittee may consolidate CSO reports which are on similar reporting schedules.

g. The permittee shall implement paragraphs i. through x. listed below, by the effective date of this permit:

i. Each CSO structure/regulator, pumping station and/or tidegate shall be routinely inspected to insure that they are in good working condition and adjusted to minimize combined sewer discharges and tidal surcharging. Such inspections shall occur monthly unless EPA and MADEP approves a site specific inspection program which has been determined by EPA and MADEP to provide an equal level of effectiveness.(MTBL #1, 2, and 4).

ii. The following inspection results shall be recorded: the date and time of the inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the permittee shall record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The permittee shall maintain all records of inspections for at least three (3) years.

iii. Annually, no later than February 15th, the permittee shall submit a certification to MADEP and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained.

iv. The MADEP and EPA have the right to inspect any CSO related structure or outfall, without prior notification to the permittee.

v. Discharges to the combined system of septage, holding tank wastes or other material which may cause a visible

oil sheen or containing floatable material are prohibited during wet weather when CSO discharges may be active. (NMC# 3,6, and 7).

vi. Dry weather overflows (DWOs) are prohibited (NMC# 5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and the MADEP within twenty four (24) hours in accordance with the reporting requirements for plant bypass (Paragraph D.1.e. of Part II of this permit).

vii. The permittee shall quantify and record all MWRA discharges from combined sewer outfalls (NMC# 9). Quantification may be through direct measurement or estimation. When estimating, the permittee shall make reasonable efforts, i.e. gaging, measurements, to verify the validity of the estimation technique. The following information must be recorded for each combined sewer outfall for each discharge event:
(1) Estimated duration (hours) of discharge;
(2) Estimated volume (gallons) of discharge; and
(3) National Weather Service precipitation data from the nearest gage where precipitation is available at daily (twenty four (24) hour) intervals and the nearest gage where precipitation is available at one-hour intervals.

viii. Cumulative precipitation per discharge event shall be calculated.

ix. The permittee shall maintain all records of discharges for at least six (6) years after the effective date of this permit, as it is collected, on an ongoing basis.

x. Within 12 months of the effective date of this permit, the permittee shall install and maintain identification signs for all combined sewer outfall structures. The signs must be located at or near the combined sewer outfall structures and easily readable by the public from both the land and water. These signs shall be a minimum of twelve x eighteen (12 x 18) inches in size, with white lettering against a green background, and shall contain the following information:

WARNING:
WET WEATHER
SEWAGE DISCHARGE
MWRA OUTFALL (discharge serial number)

17. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from those outfalls listed in Attachments A and B of this permit. Discharges of wastewater from any other point source are not authorized under this permit, see also Part II.B.4 (Bypass) of this permit, except that this section of the permit shall not apply to the discharge of wastewater flow through the existing Deer Island outfall system into Boston Harbor if such a discharge is required by EPA and the MADEP.

18. OPERATION AND MAINTENANCE OF THE MWRA SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

a. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

b. Infiltration/Inflow

i. A summary report of all actions taken to reduce infiltration/inflow during the previous twelve (12) months shall be submitted to EPA and the MADEP (pursuant to part I.20.a.i) by the first (1st) day of September of each year. The permittee may consolidate this report with the Water Conservation Plan described under section 10.3. of this permit.

ii. The permittee shall, within one year of the effective date of this permit, develop a comprehensive program to identify and remediate I/I and SSO problems within the MWRA service area, and submit a report describing its recommended program to MADEP and EPA. The MWRA shall consult with its member communities while developing this program. The MWRA shall recommend allocation of fiscal and legal responsibilities for implementation of the elements of the comprehensive plan.

The plan shall include:

(1) An operation and maintenance plan for MWRA and community sewer systems, developed in cooperation between MWRA and its member communities, which is to be implemented by the owner of each collection system and which includes the following:

a. Identification of all potential and actual SSO locations.

b. A program for periodic inspection and monitoring of overflow points during wet weather.

c. A program for routine reporting of SSO discharges to MADEP and EPA.

d. Identification of SSOs which occur as a result of maintenance deficiencies (illegal sewer blockages, pump failures) and a plan for improved maintenance to prevent recurrence.

e. Identification of reasonable performance standards for future system maintenance and a reporting system to assess performance. The plan shall include a mechanism for ensuring that MWRA member communities implement routine operation and maintenance programs, either by including such requirements in the MWRA's municipal permits or through another equally effective mechanism.

(2) A plan for managing I/I into MWRA and member communities' collection systems which includes the following:

a. A system-wide analysis to identify and establish priority for I/I remediation needs within the entire service area (MWRA and communities). Priority shall be established with consideration of public health impacts (basement flooding), water quality impacts (e.g. SSOs), streamflow impacts (e.g. low receiving water flows due to out of basin transfer), and cost and value effectiveness.

b. A program for addressing the identified I/I remediation needs. The following activities shall be evaluated for their effectiveness in addressing the identified needs:

(1) MWRA's current financial programs for I/I removal. Include recommendations for future funding programs for eligible community I/I reduction projects;

(2) MWRA's current rate methodology. Include recommendations of modifications to provide further incentives for reducing flow;

(3) Programs to offset impacts associated with sewer connections (e.g. water/wastewater "banks");

(4) Establishing minimum I/I requirements in each community's municipal permit and requiring community reports on the effectiveness of specific programs adopted (e.g. private source removals); and

(5) MWRA technical assistance and public education programs to support community I/I reduction efforts, and the need for any improvements.

EPA and the MADEP will solicit public comment on the program described above and shall submit their comments, along with those from the public, and any recommended revisions to the MWRA within six months of the MWRA submittal. Six months thereafter, the MWRA shall submit to EPA and the MADEP its final program, reflecting those comments and recommendations, for I/I and SSO control within the MWRA service area. Within four months after receiving comments from EPA and the MADEP on the program, the MWRA and its member communities shall begin to implement those parts of the program that have been approved by EPA and the MADEP. Within four months of the EPA's and MADEP's approval of a final program, MWRA and its member communities shall begin to implement that program. EPA and the MADEP will monitor the effectiveness of the program and if necessary may modify the program and/or the MWRA's NPDES permit to add, modify, or delete I/I or SSO activities. Requirements related to SSO control may be incorporated or revised as part of the permit modification for Phase II CSO controls.

Within eighteen months of the effective date of this permit, the permittee shall enter into an updated Memorandum of Agreement (MOA) with the MADEP regarding I/I issues.

The MOA shall allocate roles and responsibilities, including enforcement, among MWRA, its member communities and the MADEP to ensure implementation of the comprehensive program.

c. Pumping and System Capacities

The permittee shall submit the following information monthly to the EPA and the MADEP as specified in Part I.20.a.:

i. The number of pumps fully operational each day at the Deer Island POTW and a summary report on the operational status of the pumps at MWRA pumping stations.

ii. The number of hours each day the gates were choked at the Columbus Park, Ward Street, and Chelsea Creek Headworks.

iii. The daily flow rates through the Columbus Park, Ward Street, and Chelsea Creek Headworks.

d. Alternative Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall provide by the effective date of the permit an alternative power source sufficient to operate the wastewater control facilities - including all pump and lift stations.

e. Outfall and Diffusers

Within one hundred and eighty (180) days of the effective date of this permit, the permittee shall field test and certify whether the outfall's minimum dilution is equal to, or greater than, the predicted minimum dilution specified in the following document, "Hydraulic Model Study of the Boston Wastewater Outfall, II: Environmental Performance", 1993, by Roberts and Snyder. If the treatment facility is not fully operational within one hundred and eighty (180) days of the effective date of this permit, the permittee may submit a written

request to EPA and the MADEP to extend the dilution field test and certification requirement date. The permittee must demonstrate that the dilution field test will be inaccurate until a specified date. If the proposed extended date is approved by EPA and the MADEP, the extended date will take effect.

The permittee shall conduct a video inspection in the first year and third year of the permit, which may be submitted with the annual Contingency Plan report described under section 8.a., and whenever the flow versus hydraulic head relationship changes in such a way that indicates the diffusers may not be functioning properly. Attached to its monthly DMR report, the permittee shall submit a monthly report to EPA and the MADEP that includes: (1) ongoing performance of the diffusers as determined by the flow versus hydraulic head relationship, (2) number of risers and ports opened and closed, and (3) information available from any video inspections conducted that month. Until the outfall commences operation, the permittee shall submit a report to EPA and the MADEP each month on the status of the outfall construction and the permittee's plans for the treatment plant and outfall start up operation. This report shall include a time table for the completion of all key tasks.

f. Within ninety (90) days of the effective date of this permit, the permittee shall develop and implement a long-range operations and maintenance plan that will maximize the life of the treatment facility. The permittee shall report on the plan's implementation and results to EPA and the MADEP on a yearly basis.

g. The MWRA shall perform routine maintenance of the sewer system, the sewage treatment plant, and the sludge pelletizing plant. Such maintenance shall include prompt repair of any malfunctioning outfall diffuser ports. An annual maintenance update shall be published in the MWRA's Annual Report. The MWRA shall submit an annual status sheet to EPA and the MADEP on plant performance, using key indicators for maintenance and providing detailed information on any necessary equipment replacement. The annual status sheet shall be placed on the MWRA web page for public information purposes.

19. LONG-TERM CSO CONTROL PLAN

A court order, in ongoing litigation among EPA, the MADEP, the MWRA, and others ("court order"), requires the MWRA to construct certain CSO control facilities ("court-ordered facilities"). These facilities were initially proposed in the MWRA's December 1994 "Final CSO Conceptual Plan." This plan anticipated changes in water quality standards for certain areas.

The MWRA issued a Final CSO Facilities Plan in August 1997. Water quality standards revisions were proposed by the MADEP in December, 1997 and approved by EPA in February, 1998. In addition, 24 months and 36 months variances to the water quality standards were issued by the MADEP for the Lower Charles River Basin on September 2, 1998 and for the Alewife/Upper Mystic River Basin on March 5, 1999, respectively.

The permittee is required, by December, 1998, to submit to EPA and the MADEP an updated version of the 1997 Final CSO Facilities Plan. This update shall reflect the findings and analysis developed pursuant to the July, 1998 milestone concerning compliance with water quality standards, as well as any additional facilities required pursuant to the December, 1997 milestone concerning the Charles River. This update shall include a clear explanation of how the updated plan meets the requirements of EPA's national CSO policy, which was published in the Federal Register on April 19, 1994 (59 FR 18688), or any subsequent amendments, and any applicable guidance.

20. MONITORING AND REPORTING

a. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms postmarked no later than the fifteenth (15th) day of the month following the completed reporting period. The first report is due on the fifteenth (15th) day of the month following the effective date of the permit.

i. Original signed, dated Discharge Monitoring Reports and all other reports required herein, shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
P.O. Box 8127
Boston, Massachusetts 02114

ii. One signed copy of all the Discharge Monitoring Reports and all other reports required herein, except for Toxicity Test Reports, shall be submitted to the State at the following address:

Massachusetts Department of Environmental Protection
Massachusetts Division of Watershed Management
Northeast Regional Office
205A Lowell Street
Wilmington, Massachusetts 01887

iii. Copies of all Toxicity Test Reports and all other reports (except Discharge Monitoring Reports) shall be submitted to the following address:

Massachusetts Department of Environmental Protection
Watershed Planning and Permitting Section
Division of Watershed Management
627 Main Street
Worcester, Massachusetts 01608

b. Notice of Noncompliance

The permittee shall give notice of noncompliance with the terms and conditions of this permit pursuant to Section D on pages 10 and 11 of Part II of the permit. Notice of noncompliance does not relieve the permittee of its obligation to ensure that such noncompliance does not occur.

c. Notification to the Public Health Agents

The permittee shall notify the public health agent in Winthrop, MA of any discharge through POTW outfall

discharge serial numbers 004 and 005, and the public health agent in Quincy, MA of any discharge through POTW outfall discharge serial numbers 101, 102, 103, 104 and the Nut Island Spillway in advance whenever possible, and otherwise within twenty-four (24) hours, by telephone, specifying the time and approximate volume and duration of the discharge. Discharges from outfalls: 001, 002, 004, 005, 101,102, 103, 104 and the Nut Island Spillway shall be reported to EPA and the MADEP pursuant to condition 20.a. of this permit and within twenty- four (24) hours, by telephone, specifying the time and approximate volume and duration of the discharge.

d. Notification to the United States Food and Drug Administration

The permittee shall notify the Shellfish Program Specialist at the U. S. Food and Drug Administration's Northeast Regional Office of any chlorination treatment failure at the Deer Island facility within twenty four (24) hours, by telephone, specifying the time and relevant details of the event and the approximate volume and duration of the wastewater discharged during the event.

e. Notification to the General Public:

The permittee shall inform the general public by maintaining a free-access Internet web page and by maintaining at least two repositories where hard copies of all documents are placed, one of which shall be the MWRA's Charlestown Navy Yard Offices, and the other shall be on Cape Cod (i.e., the specific location will be determined after consultation with interested Cape Groups.). The following information shall be included on the Internet web page and in each repository:

(1) any proposed changes to the ambient monitoring plan, including any proposed interim changes,
(2) any proposed changes to the contingency plan, including any proposed interim changes,
(3) all "caution" and/or "warning" level exceedances, as defined within the Contingency Plan,
(4) the MWRA's outfall contingency simulation plan and any proposed changes to this plan.
(5) all reports sent by the MWRA to the OMSAP for review,
(6) all notices sent to EPA/MADEP regarding facility changes that may result in receiving water impacts,
(7) the MWRA's pollution prevention plan and any proposed changes to this plan,
(8) any proposed changes to the current groundwater remediation prohibition,
(9) all analyses of industrial pretreatment local limits and any proposed changes to the local limits, and
(10) all sampling results reported within Discharge Monitoring Reports.

f. Notification to the Stellwagen Bank National Marine Santuary (SBNMS)

On or before January 1st of each year, for the life of this permit, the MWRA shall submit a report to the Stellwagen Bank National Marine Sanctuary (SBNMS) that: (1) includes all monitoring and related data from the Ambient Monitoring Plan that relates to the SBNMS, and (2) documents the effects of the Deer Island discharge on Sanctuary resources and qualities regarding the previous year.

21. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Director of the Division of Watershed Management pursuant to M.G.L. Chapter 21, §43.

During the 30 day period following the issuance of the permit, any person aggrieved by the issuance of the permit may file a request for an adjudicatory hearing at the MADEP. The standing of a person to request a hearing,

and the procedure for filing such request are governed by the provisions of M.G.L. c.30A and 310 CMR 1.01. See also 314 CMR 2.08.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.